APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,998	10/21/1999	DANIEL W. HEPNER	10990763-1	6218

7590   09/30/2002

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EXAMINER
PHAM, HUNG Q

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 09/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.		Applicant(s)
Office Action Summary	09/422,998		HEPNER ET AL.
	Examiner		Art Unit
	HUNG Q PHAM		2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. ·
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2002* .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)		4)☐	Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)		5)☐	Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .		6)☐	Other: .

DETAILED ACTION

1.   Applicants requested for reconsideration in the amendment received on

07/30/2002. The pending claims are 1-20. Applicants' arguments have been fully

considered by the examiner.

Response to Arguments

2.   Applicants' arguments filed on 07/30/2002 have been fully considered but

they are not persuasive.

Applicants stated that

Nowhere in the cited text is there an indication of a reporting: application methodology that receives a request from a client to notify the client of a condition. Rather, in the prior art described by the present application, the client itself (e.g. the application program in the above-quoted portions) performs queries, receives actual data responsive to such queries, and derives the desired data from the received actual data. Thus, the applied reference described by the present application does not include a reporting application for <u>receiving from</u> a client a request <u>to notify the</u> client of a condition of an attribute. Therefore, the described prior art fails to teach "receiving a request from a client to notify said client" (as recited by claim 1) or "receiving from a client a request to notify said client" (as recited by claims 13 and 18) [Request for Reconsideration, page 7].

Further, the Office Action admits that the prior art does not teach <u>"deriving data</u> about said system attribute to determine if said condition exists." See Office Action at page 3. The Office Action attempts to cure this deficiency by referencing page 2, lines 1-5, which state: "[the] <u>application program</u> may itself figure out whether any changes have occurred in the system attributes, so that the program may account for any such changes" (emphasis added). The Examiner cites the referenced text as indicating that the described prior art is capable of "deriving data about said system attribute to determine if said condition exists" (as recited by Claim 1).

However, Applicants respectfully contend that the Office Action's assertion conflates the responsibilities of the application program and the reporting application, when comparing the described prior art with the present application. For instance, as detailed above in the described prior art, the application program issues commands to retrieve actual data regarding the status and membership of a cluster. Then the application program sorts through the received data to determine whether any changes have occurred within the cluster. See Application at page 3, lines 15-18. Thus, in this case, the client (e.g., the application program) itself is responsible for querying the system and deriving desired information from the received actual data. The described prior art

fails to teach a "method of reporting existence of a ... condition ... comprising ... deriving data about said system attribute..." (as recited by claim 1) or "[a] reporting application... comprising ... computer executable software code for deriving data about said system attributes..." (as recited by claim 13). Since the described prior art requires that the application program itself perform the task of figuring out whether any changes in conditions have occurred, the applied reference falls to teach at least the above limitations of claims I and 13. Therefore, claims I and 13 are not obvious in view of the described prior art.

Examiner respectfully traverses because of these reasons:

Regarding to claims 1, 13 and 18, as disclosed in the background: *in the prior art, an application program can issue commands querying a system, and in response to such commands receive "actual" data. From such actual data, the application program itself must derive the data in which the application is interested. For example, suppose that an application program desires to know whether a particular cluster is up or down and the number of nodes within the particular cluster. The application program may issue a command querying the system and in response to such command the application program may be returned four datum, each indicating containment of a different node by the particular cluster* (applicant admitted prior art, page 3, lines 21-28). Because the application could not automatically issue the command and in order to issue the commands by an application program, obviously, a user, who gives the commands or requests to the application program is present. Applicant admitted prior art further discloses: *for example, within the UNIX operating system, an application program may utilize a command to obtain the current status of the cluster and the membership of such cluster* (applicant admitted prior art, page 3, lines 8-11). Thus, the implication of user and the disclosure indicates the step of *receiving a request from a client to notify said client of a condition of an attribute of a system, wherein said request comprises information specifying a query for said system attributes.*

As illustrated in the Background: *an application program can issue commands querying a system, and in response to such commands receive "actual" data. From such actual data, the application program itself must derive the data in which the application is interested. For example, suppose that an application program desires to know whether a particular cluster is up or down and the number of nodes within the particular cluster* (applicant admitted prior art, page 3, lines 21-26), and *the application program may itself figure out whether any changes as the conditions have occurred in the system attributes, so that the program may account for any such changes. Thus, the application program itself may contain the complexity of obtaining information about system attributes, and determining whether any changes have occurred in the system attributes* (applicant admitted prior art, page 2, lines 3-8), and *in the prior art, an application or user may be notified asynchronously of changes in attributes. For example, a user may be notified if a printer on the system is out of ink, has a paper jam, or is out of paper.* These disclosure indicate the steps of *querying said system as specified by said request; deriving data about said system attribute to determine if said condition exist; and upon determining that said condition exists, notifying said client of the existence of said condition.*

3.   In response to applicant's argument that there is no motivation, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958

F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all the disclosure above as applicant admitted prior art and the purpose is to be notified regarding changes of system attributes, thus, the motivation is to have a method for notifying the system attributes when a user would like to inquiry the system and have an appropriate feedback of changes or system attributes relate to the user's query.

4.   Thus, it is believed that claims 1, 13 and 18 are not defined over the applicant admitted prior art. In addition, claims 2-12, 14-17 and 19-20 depend directly or indirectly upon claims 1, 13 and 18 are also rejected as being unpatentable over applicant admitted prior art or applicant admitted prior art in view of Sybase as discussed in the office action.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1-5, 11-13, 16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art [Background, pages 2-6].**

Regarding to claims 1 and 13, applicant admitted prior art teaches an operated application program for investigating and obtaining information about system attributes as a method and reporting application for stimulating notification regarding changes of system attributes (page 2, lines 1-5). As illustrated in the Background: *an application program can issue commands querying a system, and in response to such commands receive "actual" data. From such actual data, the application program itself must derive the data in which the application is interested. For example, suppose that an application program desires to know whether a particular cluster is up or down and the number of nodes within the particular cluster* (applicant admitted prior art, page 3, lines 21-26), and *the application program may itself figure out whether any changes as the conditions have occurred in the system attributes, so that the program may account for any such changes. Thus, the application program itself may contain the complexity of obtaining information about system attributes, and determining whether any changes have occurred in the system attributes* (applicant admitted prior art, page 2, lines 3-8), and *in the prior art, an application or user may be notified asynchronously of changes in attributes. For example, a user may be notified if a printer on the system is out of ink, has a paper jam, or is out of paper.* These disclosures indicate the steps of *querying said system as specified by said request; deriving data about said system attribute to determine if said condition exist; and upon determining that said condition exists, notifying said client of the existence of said condition.* Applicant admitted prior art does not explicitly teach the step of *receiving a request from a client to notify said client of a condition of an attribute of a system, wherein said request comprises information specifying a query for said system*

attributes. However, as disclosed in the background: *in the prior art, an application program can issue commands querying a system, and in response to such commands receive "actual" data. From such actual data, the application program itself must derive the data in which the application is interested. For example, suppose that an application program desires to know whether a particular cluster is up or down and the number of nodes within the particular cluster. The application program may issue a command querying the system and in response to such command the application program may be returned four datum, each indicating containment of a different node by the particular cluster* (applicant admitted prior art, page 3, lines 21-28). Because the application could not automatically issue the command and in order to issue the commands by an application program, obviously, a user, who gives the commands or requests to the application program is present. Applicant admitted prior art further discloses: *for example, within the UNIX operating system, an application program may utilize a command to obtain the current status of the cluster and the membership of such cluster* (applicant admitted prior art, page 3, lines 8-11). Thus, the implication of user and the disclosure indicates the step of *receiving a request from a client to notify said client of a condition of an attribute of a system, wherein said request comprises information specifying a query for said system attributes*. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the applicant admitted prior art method and program by including the steps of receiving a request from a client for querying system, deriving data and notifying client in order to inquiry the system and have an appropriate feedback of changes of system attributes relate to the user's query.

Regarding to claim 18, applicant admitted prior art teaches a system for

investigating and obtaining information about system attributes and an application

program for stimulating notification regarding changes of system attributes as the

means for *storing and executing reporting application* (applicant admitted prior art, page 2,

lines 1-5). As illustrated in the Background: *an application program can issue commands*

querying a system, and in response to such commands receive "actual" data. From such actual

data, the application program itself must derive the data in which the application is interested. For

example, suppose that an application program desires to know whether a particular cluster is up or

down and the number of nodes within the particular cluster (applicant admitted prior art, page

3, lines 21-26), and *the application program may itself figure out whether any changes* as *the*

conditions have occurred in the system attributes, so that the program may account for any such

changes. Thus, the application program itself may contain the complexity of obtaining information

about system attributes, and determining whether any changes have occurred in the system

attributes (applicant admitted prior art, page 2, lines 3-8), and *in the prior art, an application*

or user may be notified asynchronously of changes in attributes. For example, a user may be

notified if a printer on the system is out of ink, has a paper jam, or is out of paper. These

disclosures indicate the steps of *request comprising information specifying a query for said*

system attribute, determining if said condition exists, notifies said client of the existence of

said condition. Applicant admitted prior art does not explicitly teach the step of *receiving*

from a client a request to notify said client of a condition of an attribute of a system.

However, as disclosed in the background: *in the prior art, an application program can issue*

commands querying a system, and in response to such commands receive "actual" data. From

such actual data, the application program itself must derive the data in which the application is

interested. For example, suppose that an application program desires to know whether a particular

cluster is up or down and the number of nodes within the particular cluster. The application

program may issue a command querying the system and in response to such command the

application program may be returned four datum, each indicating containment of a different node

by the particular cluster (applicant admitted prior art, page 3, lines 21-28). Because the

application could not automatically issue the command and in order to issue the

commands by an application program, obviously, a user, who gives the commands or

requests to the application program is present. Applicant admitted prior art further

discloses: *for example, within the UNIX operating system, an application program may utilize a*

command to obtain the current status of the cluster and the membership of such cluster

(applicant admitted prior art, page 3, lines 8-11). Thus, the implication of user and the

disclosure indicates the step of *receiving from a client a request to notify said client of a*

condition of an attribute of a system. Therefore, it would have been obvious for one of

ordinary skill in the art at the time the invention was made to modify the applicant

admitted prior art system by including the steps of receiving a request from a client for

querying system, deriving data and notifying client in order to inquiry the system and

have an appropriate feedback of changes of system attributes relate to the user's query.

Regarding to claim 2, applicant admitted prior art teaches all the claimed subject

matters as discussed in claim 1, and further discloses *generating derived data based upon*

the result of said query of said system (page 3, lines 21-24).

Regarding to claims 3 and 16, applicant admitted prior art teaches all the claimed subject matters as discussed in claims 1 and 13, applicant admitted prior art further discloses *condition is a change in said attribute* (page 2, lines 3-5).

Regarding to claim 4, applicant admitted prior art teaches all the claimed subject matters as discussed in claim 1, and further discloses *attribute is selected from the group consisting of: membership of nodes within a cluster, configuration of a cluster, status of a peripheral device, failure of computer hardware, access to local peripherals, addition of shared peripherals, removal of shared peripherals, ownership of a shared peripheral, availability of shared peripherals for addition to a cluster, resilience to faults of a High Availability cluster, performance potential of a cluster, and any combination thereof* (page 2, lines 11-20 and page 4, line 28-page 5, line 9).

Regarding to claims 5 and 19, applicant admitted prior art teaches all the claimed subject matters as discussed in claims 1 and 18, applicant admitted prior art further discloses *client is selected form the group consisting of a user an a client application program* (page 2, lines 1-6).

Regarding to claim 11, applicant admitted prior art teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *client is a graphical user interface (GUI) that displays information to a human user*. However, applicant admitted

prior art discloses that an application or user may be notified asynchronously of

changes in system attributes (page 5, lines 28-29). This indicates a graphical user

interface for displaying information. Therefore, it would have been obvious for one of

ordinary skill in the art at the time the invention was made to modify the applicant

admitted prior art method by including the GUI for displaying information in order to

communicate between a user and system.

Regarding to claim 12, applicant admitted prior art teaches all the claimed

subject matters as discussed in claim 11, but fails to disclose the step of *deriving data to*

determine if a condition of said one or more attributes exists such that the GUI should redraw

the graphics displaying said information about said one or more attributes. However,

applicant admitted prior art discloses that an application or user may be notified

asynchronously of changes in system attributes (page 5, lines 28-29). This indicates a

graphical user interface redrawing the graphics displaying information about one or

more attributes. Therefore, it would have been obvious for one of ordinary skill in the art

at the time the invention was made to modify the applicant admitted prior art method by

including the technique of redrawing the graphics displaying information of attributes in

order to provide asynchronously the different views of a system attributes.

Regarding to claim 20, applicant admitted prior art teaches all the claimed

subject matters as discussed in claim 18, and further discloses the system comprises

multiple nodes, wherein at least one of said nodes is executing said reporting application
(page 2, lines 18-20).

7.   **Claims 6-10, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as
being unpatentable over applicant admitted prior art in view of Sybase [SQL
serveräTransact-SQL User's Guide].**

Regarding to claims 6 and 14, applicant admitted prior art teaches all the claimed
subject matters as discussed in claims 1 and 13, applicant admitted prior art further
discloses an application program can issue commands querying a system and in
response to such commands receive "actual" data (page 3, lines 21-23), but fails to
teach *information specifying a query for said system attribute is an SQL query*. Sybase
teaches SQL as a high level language for relational database system and using query
as a request for retrieval of data by using the select command (Sybase, Chapter 1:
Introduction, Overview and Queries, Data Modification). Therefore, it would have been
obvious for one of ordinary skill in the art at the time the invention was made to modify
the applicant admitted prior art method and computer program code by using SQL as a
high level language in order to query and retrieve complex information of system
attributes.

Regarding to claims 7 and 15, applicant admitted prior art and Sybase teaches
all the claimed subject matters as discussed in claims 6 and 14, Sybase further

discloses *SQL query comprises an SQL view* (Sybase, Chapter 1: Introduction, Overview

and Queries, Data Modification).

Regarding to claim 8, applicant admitted prior art teaches all the claimed subject

matters as discussed in claim 1 and further discloses an application program can issue

commands querying a system and in response to such commands receive "actual" data,

but fails to teach *information specifying a query for said system attribute comprises multiple*

transactions bracketed together. Sybase teaches SQL as a high level language for

relational database system and using query as a request for retrieval of data by using

the select command and information specifying a query comprises multiple transactions

bracketed together (Sybase, Chapter 1: Introduction, Overview and Queries, Data

Modification, Chapter 2, Queries: Selecting Data From a Table, What are Queries).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the

invention was made to modify the applicant admitted prior art method by including the

taught of Sybase of bracketing multiple transactions together in order to have a complex

query for information.

Regarding to claims 9 and 17, applicant admitted prior art teaches all the claimed

subject matters as discussed in claims 1 and 13, applicant admitted prior art further

discloses an application program can issue commands querying a system and in

response to such commands receive "actual" data (page 3, lines 21-23) and the

program may itself figure out whether any changes have occurred in the system

attributes (page 2, lines 3-5). Applicant admitted prior art fails to teaches *multiple*

conditions bracketed together, wherein upon determining that such bracketed conditions exist,

notifying said client of the existence of such bracketed conditions. Sybase teaches SQL as a

high level language for relational database system and using query as a request for

retrieval of data by using the select command and information specifying a query

comprises multiple transactions bracketed together (Sybase, Chapter 1: Introduction,

Overview and Queries, Data Modification, Chapter 2, Queries: Selecting Data From a

Table, What are Queries). Thus, multiple changes as the conditions of the system

attributes can be queried by bracketing them together for stimulating notification.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the

invention was made to modify the applicant admitted prior art method by including the

taught of Sybase of bracketing multiple conditions together in order to query a complex

changes as the conditions of system attributes.

Regarding to claim 10, applicant admitted prior art and Sybase teaches all the

claimed subject matters as discussed in claim 9, but fails to disclose *multiple changes*

bracketed together, wherein upon determining that such bracketed changes exist, notifying

said client of the existence of such bracketed changes. Sybase teaches SQL as a high level

language for relational database system and using query as a request for retrieval of

data by using the select command and information specifying a query comprises

multiple transactions bracketed together (Sybase, Chapter 1: Introduction, Overview

and Queries, Data Modification, Chapter 2, Queries: Selecting Data From a Table, What

are Queries). Thus, multiple changes can be queried by bracketing them together for stimulating notification. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the applicant admitted prior art method by including the taught of Sybase of bracketing multiple changes together in order to query a complex changes of system attributes.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
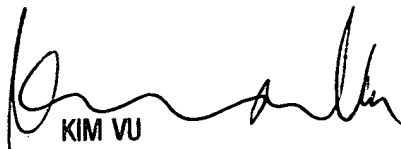
9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-746 7239

for regular communications and 703-746 7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham
September 16, 2002

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100